Listing of Claims:

1. (Currently Amended) A method for roughening a surface which is a light exit surface of ~~a body (1)~~ an optoelectronic semiconductor body, ~~having the following~~ comprising the steps of:

a) coating the surface of the optoelectronic semiconductor body with a mask layer; ~~(2)~~

b) applying preformed mask bodies ~~(3)~~ on the mask layer; ~~(2)~~

c) etching through the mask layer ~~(2)~~ at locations not covered by mask bodies; and ~~(3)~~

d) etching the optoelectronic semiconductor body ~~(1)~~ at surface locations ~~of its surface~~ that are free of the mask layer ~~(2)~~.

2. (Currently Amended) The method as claimed in claim 1, wherein the optoelectronic semiconductor body ~~(1) containing~~ contains aluminum gallium indium phosphide ~~phosphite~~.

3. (Currently Amended) The method as claimed in claim 1, wherein the optoelectronic semiconductor body ~~(1) containing~~ contains aluminum gallium indium nitride.

4. (Currently Amended) The method as claimed in claim 1, wherein the mask layer ~~(2) comprising~~ comprises a dielectric.

5. (Currently Amended) The method as claimed in claim 1, wherein the preformed mask bodies comprise polystyrene balls ~~made of polystyrene being used as preformed mask bodies (3)~~.

6. (Currently Amended) The method as claimed in claim 1, wherein the etching steps ~~being carried out by means of~~ are performed via a dry etching method.

7. (Currently Amended) The method as claimed in claim 1, wherein the method ~~being carried out in~~ is implemented such ~~a way~~ that structures ~~(4)~~ remain in the surface of the optoelectronic semiconductor body ~~(1), for the,~~ a width (b) of ~~which~~ said structures in relation to the etching depth (t) being ~~the following holds true~~[[:]] $0.1 < t/b < 10$.

8. (Currently Amended) The method as claimed in claim 1, the method being implemented ~~carried out in~~ such ~~a way~~ that structures ~~(4)~~ remain in the surface of the optoelectronic semiconductor body ~~(1), for the,~~ a width (b) of ~~which~~ said structures in relation to the etching depth (t) being ~~the following holds true~~[[:]] $0.25 < t/b < 5$.

9. (Currently Amended) The method as claimed in claim 1, wherein ~~the~~ residues of the preformed mask bodies ~~body (3) being~~ are removed from the mask layer ~~(2)~~ immediately after step c).

10. (Currently Amended) The method as claimed in claim 1, wherein the etching depth ~~(t)~~ in the optoelectronic semiconductor body ~~(1) being~~ is between 50 and 100 nm.

11. (Currently Amended) The method as claimed in claim 1, wherein the preformed mask layer ~~(2) being~~ is applied ~~with~~ to a thickness ~~(d)~~ of between 10 and 100 nm.

12. (Currently Amended) The method as claimed in claim 1, wherein the preformed mask bodies ~~(3)~~[[,]] on the mask layer ~~(2), having~~ have a lateral extent ~~(A)~~ of between 150 and 300 nm.

13. (Currently Amended) The method as claimed in claim 1, wherein the first etching step ~~being~~ is effected ~~by means of~~ via a process step which etches the mask bodies ~~(3)~~ to a greater degree than the semiconductor body ~~(1)~~.

14. (Currently Amended) The method as claimed in claim 1, wherein the etching through the mask layer ~~(2) being~~ is effected ~~by means of~~ via an installation for reactive ion etching.

15. (Currently Amended) The method as claimed in claim 14, wherein a mixture of CHF_3 and Ar ~~being~~ is used as etching gas.

16. (Currently Amended) The method as claimed in claim 1, wherein the optoelectronic semiconductor body ~~(1) being~~ is etched ~~by means of~~ via an installation suitable for an inductively coupled plasma.

17. (Currently Amended) The method as claimed in claim 16, wherein a mixture of CH_4 and H_2 ~~being~~ is used as etching gas.

18. (Canceled)

19. (Canceled)

20. (Currently Amended) An optoelectronic component, comprising:

[[a]] an optoelectronic semiconductor body ~~containing aluminum gallium indium phosphate and~~ having a light exit surface that is patterned with structures;

wherein each of said structures has a ratio of depth (t) to width (b) that is in accordance with the relationship $0.1 < t/b < 10$.

21. (Currently Amended) The optoelectronic component in claim 20, wherein each of said structures has [[a]] the ratio of depth ~~(t)~~ to width ~~(b) that is~~ in accordance with the relationship $0.25<t/b<5$.

22. (Currently Amended) An optoelectronic component, comprising:

an optoelectronic [[a]] semiconductor body containing aluminum gallium indium nitride or aluminum gallium indium phosphide and having a light exit surface that is patterned with structures;

wherein each of said structures has a ratio of depth (t) to width (b) that is in accordance with the relationship $0.1 < t/b < 10$.

23. (Currently Amended) The optoelectronic component in claim 22, wherein each of said structures has [[a]] the ratio of depth ~~(t)~~ to width ~~(b) that is~~ in accordance with the relationship $0.25<t/b< 5$.

24. (New) The method as claimed in claim 1, wherein the preformed mask bodies are applied as a monolayer on the surface of the mask layer in a random arrangement.

25. (New) The method as claimed in claim 1, wherein the preformed mask bodies are applied as a monolayer on the surface of the mask layer in a regular arrangement.

26. (New) The method as claimed in claim 1, wherein the mask layer remains on the surface of the optoelectronic semiconductor body.

27. (New) The method as claimed in claim 1, wherein structures remaining in the surface of the optoelectronic semiconductor body comprise cylindrical turrets.

28. (New) The optoelectronic component as claimed in claim 20, wherein the structures in the light exit surface comprise cylindrical turrets.

29. (New) The optoelectronic component as claimed in claim 22, wherein the structures in the light exit surface comprise cylindrical turrets.

30. (New) The optoelectronic component as claimed in claim 20, wherein the structures improve coupling-out of light from the optoelectronic semiconductor body.

31. (New) The optoelectronic component as claimed in claim 22, wherein the structures

improve coupling-out of light from the optoelectronic semiconductor body.

32. (New) The optoelectronic component in claim 20, wherein the optoelectronic semiconductor body is a light emitting diode.

33. (New) The optoelectronic component in claim 22, wherein the optoelectronic semiconductor body is a light emitting diode.